



U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 2

July 11, 2019

BY ELECTRONIC MAIL

Robert Law, Ph.D.
de maximis, inc.
186 Center Street, Suite 290
Clinton, New Jersey 08809

Re: Lower Passaic River Study Area – Feasibility Study – Administrative Settlement
Agreement and Order on Consent for Remedial Investigation/Feasibility Study
(Agreement) CERCLA Docket No. 02-2007-2009

Dear Dr. Law:


The United States Environmental Protection Agency (EPA) reviewed the Cooperating Parties Group (CPG) responses to EPA comments on:

- *Applicable or Relevant and Appropriate Requirements Table*,
- *Common Engineering Elements*, and
- *Draft Basis of Cost Estimate*

The reviews of the CPG responses are attached. In summary, the CPG accepted the EPA comments on the *Applicable or Relevant and Appropriate Requirements Table*. Thus, EPA accepts the responses, pending review of the CPG's Interim Remedy FS Report to be submitted to EPA in draft form on August 12, 2019, as shown in the attached review table.

Many of the EPA comments on the *Draft Basis of Cost Estimate* were accepted by the CPG, thus EPA accepts these responses pending review of the Interim Remedy FS Report. In some instances, EPA has not accepted responses or has requested additional information, and has asked that the change be made, or additional information provided, in the Interim Remedy FS Report. Lastly, each CPG response to the EPA comments on the *Common Engineering Elements* was accepted pending review of the Interim Remedy FS Report. Please incorporate any of the suggested changes into the Interim Remedy FS. Please let me know if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Diane Salkie".

Diane Salkie, Remedial Project Manager
Lower Passaic River Study Area RI/FS

Cc: Zizila, F. (EPA)
Sivak, M. (EPA)
Hyatt, B. (CPG)
Potter, W. (CPG)

Applicable or Relevant and Appropriate Requirements Table

<u>No.</u>	<u>Location/Page No.</u>	<u>EPA Comment</u>	<u>CPG Response</u>	<u>EPA Review of CPG Response</u>
1	Potential Chemical-Specific ARARs, page 1, New Jersey Water Pollution Control Act	The description limits reach-specific classifications to “Dundee Lake dam to confluence with Second River”, the upper 9 miles of the Lower Passaic River. The discussion does not include the identification of the “Confluence with Second River to mouth: SE3 (Saline Estuarine 3)” as part of the reach-specific classifications. Because surface water below Second River (RM 8.3) could be affected by the interim remedy (IR), this lower reach “Confluence with Second River to mouth: SE3 (Saline Estuarine 3)” should be identified.	Text has been added	Pending review of the Upper 9-Mile Source Control Interim Remedy feasibility study (Interim Remedy FS), CPG response is acceptable.
2	Potential Action-Specific ARARs, page 1, Clean Water Act	The following Action-Specific ARAR was identified in the Lower 8.3-Mile ROD, but not herein: Noise Control, N.J.S.A 13:1g-1 et seq., N.J.A.C. 7:20. Please include this Action-Specific ARAR.	Text has been added	Pending review of the Interim Remedy FS, CPG response is acceptable.
3	Potential Action-Specific ARARs, page 1, Clean Water Act, Dredge and Fill Requirements	Please add the following language (bolded to indicate the additional language) to the description to be consistent with the Lower 8.3-Mile ROD Action-Specific ARAR: “...ecosystem and provide for compensatory mitigation when there will be unavoidable impacts to waters of the United States. ”	Text has been added	Pending review of the Interim Remedy FS, CPG response is acceptable.
4	Potential Action-Specific ARARs, page 1, TSCA	The requirements of 40 CFR Part 761 are generally captured by the description with the following exception: 40 CFR 761.1(b)(5) prohibits the use of dilution to avoid TSCA requirements. Please add this summary to the description.	Text has been added	Pending review of the Interim Remedy FS, CPG response is acceptable.
5	Potential Action-Specific ARARs, page 2, RCRA	To be consistent with the Lower 8.3-Mile ROD, the Citation column should identify 40 CFR Parts 239 - 299.	Text has been added	Pending review of the Interim Remedy FS, CPG response is acceptable.

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6	Potential Action-Specific ARARs, page 2, Brownfield and Contaminated Site Remediation Act	Although the technical guidance is identified as “TBC,” the substantive requirements for remediation of surface water and sediments should be identified as ARARs. Please add “ARAR” before the first sentence of the applicability and anticipated requirements.	Text has been added	Pending review of the Interim Remedy FS, CPG response is acceptable.
7	Potential Location-Specific ARARs, page 1, Endangered Species Act	Please revise the first citation to “50 CFR Part 17,” as more subparts than just Subpart I are relevant.	Text has been revised	Pending review of the Interim Remedy FS, CPG response is acceptable.
8	Potential Location-Specific ARARs, page 1, National Historic Preservation Act	The discussion in the Applicability and Anticipated Requirements should be removed as it is a duplicate of the act description. Then, please move the sentence beginning with “A cultural survey...” to the requirements section.	Text has been revised	Pending review of the Interim Remedy FS, CPG response is acceptable.
9	Potential Location-Specific ARARs, page 2, New Jersey Register of Historic Places	To be consistent with the Lower 8.3-Mile ROD Location-Specific ARAR, please add the following requirement: “A cultural resource survey (Phase I and II) will be conducted during the remedial design that will comply with the NHPA and aid in consultations with the New Jersey Historic Preservation Office.”	Text has been added	Pending review of the Interim Remedy FS, CPG response is acceptable.
10	Potential Location-Specific ARARs, page 2, New Jersey Waterfront Development Law, Coastal Zone Management Rules/Standards	Change Coastal Zone Management N.J.A.C. 7:7E to Coastal Zone Management N.J.A.C. 7:7.	Text has been revised	Pending review of the Interim Remedy FS, CPG response is acceptable.

Applicable or Relevant and Appropriate Requirements Table

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11	Potential Location-Specific ARARs, page 3, Magnuson- Stevens Fishery Conservation Recovery Act	Please add this sentence at the end of the paragraph in the last column to clarify the requirements: “The dates of fish window(s) precluding actions (e.g., dredging) will be set prior to scheduling those actions”.	Text has been added	Pending review of the Interim Remedy FS, CPG response is acceptable.

Common Engineering Elements

<u>No.</u>	<u>Location/Page No.</u>	<u>EPA Comment</u>	<u>CPG Response</u>	<u>EPA Review of CPG Response</u>
1	General	The timing of actions is not discussed. Describe assumptions and estimates for when major activities, such as dredging, will start and end, and include such information in the common elements document and in the FS.	Timing (specifically the goal to coordinate with the Lower 8-mile activities) will be discussed in Section 1 of the FS, Rationale for SC IR. It is premature to define a specific schedule for dredging and other activities in the FS	Pending review of the Upper 9-Mile Source Control Interim Remedy Feasibility Study (FS), CPG response is acceptable. Please also include discussions of any assumed biological (e.g., migratory fish), weather-related, or other limiting work windows in the FS.

Common Engineering Elements

<u>No.</u>	<u>Location/Page No.</u>	<u>EPA Comment</u>	<u>CPG Response</u>	<u>EPA Review of CPG Response</u>
2	Page 1, Sediment Removal, second bullet	The assumption of mechanical dredging for purposes of the alternatives evaluation in the FS is appropriate if it is applied similarly for all alternatives. No revisions are necessary at this time. However, while mechanical dredging appears suitable for much of the upper 9 miles of the LPR, precision dredging is also anticipated for portions of the dredging effort and will need to be acknowledged in the FS and considered during the remedial design.	Precision dredging is retained as a process option to be evaluated during the RD. See second bullet under Sediment Removal.	Pending review of the Upper 9-Mile Source Control Interim Remedy FS, CPG response is acceptable.
3	Page 1, Sediment Removal, third bullet	Access limitations will need to be considered for the areas of land-based dredging. If assumptions about access to these areas significantly impact cost or schedule, include discussion of them in the common elements document and in the FS.	Noted. Initial reconnaissance suggests there is access in this area. Given the uncertainty of the remedial footprints, it is premature to specify access or evaluate specifics. Access issues will be considered in RD when remedial footprints are established. Given the limited removal that is anticipated to be performed by land-based dredging, the associated uncertainty is within the expected uncertainty of the FS-level cost and schedule estimates.	Pending review of the Upper 9-Mile Source Control Interim Remedy FS, CPG response is acceptable.

Common Engineering Elements

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4	Page 1, Dredge Material Management, third bullet	Pre-characterization of sediments during the PDI would be inappropriate for waste disposal requirements (i.e., hazardous vs. non-hazardous). A determination of waste characteristics must be made at the point of waste generation, during the dredge material management process, without any dilution, mixing, or alteration of the waste. Revise the common elements document accordingly, and ensure the FS is also prepared accordingly.	Text will be revised to clarify that sediment sampling to determine waste characterization will be performed during dredge material management.	Pending review of the Upper 9-Mile Source Control Interim Remedy FS, CPG response is acceptable.

Common Engineering Elements

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5	Page 2, Dredge Material Management, third bullet	The disposal of wastes in a Subtitle C vs. Subtitle D facility has potential to greatly influence the costs of alternatives. Explain the assumption that all dredged materials will be disposed at a Subtitle C facility or revise the assumption to incorporate some more appropriate allocation of material between Subtitle C and Subtitle D facilities in the common elements document and in the FS. Also, provide justification for the assertion that EPA has determined that sediments from the LPR do not contain RCRA-listed hazardous wastes.	<p>The assumption of disposal at a Subtitle C facility is conservative, in the event that a material is not suitable for Subtitle D disposal, or a facility cannot be identified to accept material from the LPR, and consistent with the assumptions in the lower 8-mile ROD. There is not sufficient data to allocate disposal between the two facilities, and disposal options will be evaluating following collection of the PDI data and during RD.</p> <p>See the letter from Walter Mudgan and Eric Schaaf, dated November 12, 2008 that states: “Notwithstanding the presence of the nearby Diamond Alkali facility, EPA does not have sufficient evidence to conclude that listed hazardous waste (or non-listed waste that contains hazardous constituents) generated at the facility entered the river as a listed hazardous waste and subsequently mingled with and contaminated the sediments.”</p>	Pending review of the Upper 9-Mile Source Control Interim Remedy FS, CPG response is acceptable.

Common Engineering Elements

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6	Page 2, Mitigation Dredging Residuals, first bullet	Describe in the common elements document and in the FS the types of real-time construction performance monitoring data that are planned for collection.	The text will be revised to specify that real-time construction performance monitoring will include continuous turbidity measurements and bathymetry. The details of the monitoring program will be developed during the RD.	Pending review of the Upper 9-Mile Source Control Interim Remedy FS, CPG response is acceptable. Please also note in the FS that turbidity monitoring will occur both upstream and downstream of construction areas.
7	Page 3, Mitigation of Dredging Residuals, second bullet	Describe in the common elements document and in the FS the anticipated thickness of the RMC that would be placed outside of the dredge and cap footprint, and the potential impacts to flood storage.	For the purposes of estimating costs for the FS, the RMC consists of a 6-inch layer; the text will be modified to include this detail. The placement of RMC will be designed during the RD, and will include consideration of flooding issues.	Pending review of the Upper 9-Mile Source Control Interim Remedy FS, CPG response is acceptable.
8	Page 3, Mitigation of Dredging Residuals, third bullet	Further describe the placement of the cap material (e.g., placement of full-thickness cap reach by reach, placement of first layer immediately after dredging followed by complete cap afterward, etc.) in the common elements document and in the FS.	The detailed approach to placement of cap material will be established during the RD, and will likely vary due to local conditions. Cap placement will be the same for all active alternatives, and the details will not affect the comparative analysis of the alternatives in the FS.	Pending review of the Upper 9-Mile Source Control Interim Remedy FS, CPG response is acceptable. Please also note in the FS that cap placement will occur as soon as practicable following confirmation of dredge prisms in a work area.
9	Page 3, Capping, second bullet	Access limitations will need to be considered for the areas of land-based capping. If assumptions about access to these areas significantly impact cost or schedule, include discussion of them in the common elements document and in the FS.	See response to comment #3.	Pending review of the Upper 9-Mile Source Control Interim Remedy FS, CPG response is acceptable.

Common Engineering Elements

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10	Page 3, Capping, third bullet	Provide justification for the design life of the cap and confirm whether any armor stone will have the same design life in the common elements document and in the FS.	The text will be revised to clarify that a 100-year return period flood events have been used for the purposes of estimating the potential cap armor layer thickness, consistent with regional projects and EPA guidance ¹ . It will be additionally clarified that the FS makes preliminary assumptions for the purposes of the cost estimate and that cap performance criteria related to containment and armoring will be further developed in remedial design. An Appendix to the FS will present details of the assumptions in the cap evaluation.	Pending review of the Upper 9-Mile Source Control Interim Remedy FS, CPG response is acceptable.
11	Page 3, Capping, third bullet	Provide capping assumptions for sensitive areas, such as sensitive habitat zones, and the percentage of area requiring armor stone in the common elements document and in the FS. Also indicate whether it is anticipated that armor stone would be filled in some manner with any other substrate to support ecological function.	For the purposes of the FS, it was assumed that all of the remedial footprint would require a cap composed of 25% armor and 75% sand, and the shoal areas would require habitat reconstruction such that the top 1ft (40%) of the cap would be habitat reconstruction material. Given the uncertainty of the footprint, a more detailed evaluation is not warranted for the FS. Ecological function, as well as recreational uses, will be considered during cap design in the RD. The text will be revised.	Pending review of the Upper 9-Mile Source Control Interim Remedy FS, CPG response is acceptable. In the FS, please also describe what constitutes habitat reconstruction material and how this material and its placement will differ (if at all) from the sand and armor stone being utilized elsewhere in the Upper 9-Mile Source Control Interim Remedy.

¹ USEPA 2005 Contaminated Sediment Remediation Guidance for Hazardous Waste Sites

Common Engineering Elements

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12	Page 4, Monitoring, third bullet	This bullet appears to presume that post-interim remedy confirmatory sampling would not be conducted and that only a construction certification process would be followed. Include in the comment elements document a brief description of post-remedy confirmatory sediment sampling for purposes of verifying attainment of RAOs to be consistent with discussions between EPA, NJDEP and CPG (e.g., the conference call on May 14, 2019)	Text will be revised to include post-remedy sediment sampling for the purposes of verifying RAO attainment in the monitoring element.	Pending review of the Upper 9-Mile Source Control Interim Remedy FS, CPG response is acceptable. EPA notes that the details of post-remedy confirmatory sampling are part of ongoing discussions between EPA, NJDEP, and the CPG.
13	Page 4, Monitoring, fourth bullet	Note that O&M monitoring of the cap areas should be conducted as soon as practical after installation to define a baseline data set. No revisions are necessary at this time.	Noted.	Pending review of the Upper 9-Mile Source Control Interim Remedy FS, CPG response is acceptable.
14	Page 4, Monitoring, fourth and fifth bullets	The assumption of a second ROD 10 years after IR construction is noted, and the overall remediation process for the LPRSA is the subject of ongoing discussion between EPA, NJDEP, and the CPG. No revisions are necessary at this time; however, the assumed 10-year interval may need to be revised for the FS based on the outcome of the ongoing discussions.	Noted.	Pending review of the Upper 9-Mile Source Control Interim Remedy FS, CPG response is acceptable.

Common Engineering Elements

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15	Page 4, Adaptive Management, second bullet	Note that triggers for assessment and action under adaptive management are the subject of ongoing discussions between EPA, NJDEP, and the CPG. No revisions are necessary at this time; however, the language in this bullet may need to be revised, or expanded, to present the outcome of the ongoing discussions.	Noted.	Pending review of the Upper 9-Mile Source Control Interim Remedy FS, CPG response is acceptable.
16	Page 4, Institutional Controls, first bullet	Contamination addressed by the IR may not satisfy complete risk mitigation. ICs will be necessary anywhere contaminant concentrations exceed risk-based remedial goals until such time as risks are completely mitigated. Conservative ICs (e.g., advisories for no fish consumption within the LPR) will likely be needed on an interim basis until remedial goals can be established and the necessary ICs more clearly understood. Revise the common elements document accordingly and be prepared to discuss this in the FS.	The discussion of ICs will be revised to state that ICs will likely be needed following completion of the IR and until remedial goals are achieved.	Pending review of the Upper 9-Mile Source Control Interim Remedy FS, CPG response is acceptable.

Draft Basis of Cost Estimate

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1	General	Development and breakdown of the Indirect Capital Costs should be consistent with the Professional/Technical Services presented in EPA's <i>A Guide to Developing and Documenting Cost Estimates during the Feasibility Study</i> (USEPA 2000), including Project Management, Remedial Design, Construction Management and Technical Support. Table 1 breaks down the percentages of the total direct capital costs further, which can introduce unnecessary complexity and potential double counting. Specific comments related to indirect costs are further presented below.	The cost estimate has been revised to match the indirect capital cost breakdown of the EPA guidance.	Pending review of the final cost estimates included in the Upper 9-Mile Source Control Interim Remedy feasibility study (Interim Remedy FS), CPG response is acceptable.
2	Page 2, Key Cost Assumptions, bullet 7	Describe how "vacant, uncontaminated property" is defined/assumed for purposes of identifying upland site staging area cost development.	The cost estimate assumes the parcel used for the staging area will be in a condition that permits immediate installation of support facilities. The cost estimate does not include provisions for additional site preparation or cleanup (demolition, abatement, or other cleanup activities). The bullet has been revised to describe our assumptions.	Pending review of the final cost estimates included in the Interim Remedy FS, CPG response is acceptable.
3	Table 1	Please provide additional backup for the development of the lump sum cost for "Pre-Design Investigations" (e.g., matrices to be sampled and approximate sample counts).	The PDI will be informed by the Current Conditions sampling and fully scoped during the RD. The cost was estimated based on anticipated scope and survey costs currently under	CPG response noted, but considering the magnitude of the lump sum cost, as part of the Interim Remedy FS, please provide additional backup to determine whether

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			development for the Current Conditions sampling. The cost of the PDI will not vary by alternative, and therefore does not impact the comparative evaluation of the alternatives.	this additional line item cost is reasonable and appropriate.
4	Table 1	EPA's <i>A Guide to Developing and Documenting Cost Estimates during the Feasibility Study</i> (EPA 2000) states that project management should include permitting (not already provided by the construction or O&M contractor). It appears that the sum of the percentages of total direct capital costs (TDCC) for "Project Management" and "Permitting" is consistent with the project management percentages provided as guidelines in Exhibit 5-8 of the guidance (USEPA 2000). However, permitting appears to be captured in both the description of "Project Management" line item task and also the "Permitting" line item task. Please revise the document as necessary.	The cost estimate has been revised to match the indirect capital cost breakdown of the EPA guidance.	Pending review of the final cost estimates included in the Interim Remedy FS, CPG response is acceptable.

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5	Table 1	Including EPA Oversight as a line item task is not consistent with Record of Decision (ROD) for the Lower 8.3 Miles of the Lower Passaic River (EPA 2016) or EPA's <i>A Guide to Developing and Documenting Cost Estimates during the Feasibility Study</i> (USEPA 2000). Guidance (EPA 2000) indicates that oversight activities can be included in construction management and technical support indirect cost line items as appropriate. Please revise the document accordingly.	While the CPG agrees that oversight activities may be incorporated into a broader line item, per available guidance, it is our experience that such activities for sediment cleanup projects constitute a substantive cost element that warrant transparent itemization. The guidance does not preclude breakdown of substantive cost elements. This line item will be retained.	Including EPA Oversight as a line item task is not consistent with Record of Decision (ROD) for the Lower 8.3 Miles of the Lower Passaic River (EPA 2016) or EPA's <i>A Guide to Developing and Documenting Cost Estimates during the Feasibility Study</i> (USEPA 2000). Including and/or evaluating oversight costs as a separate line item and to this level of detail is beyond the scope of an FS level cost estimate, and doing so would imply a higher level of accuracy. Please remove the EPA oversight cost line item from the table.
6	Table 2	Please provide additional backup for the development of the lump sum cost for "Work Plans and Submittals." The lump sum unit cost appears low for a project of this magnitude. Also, construction submittals, change order review and QA/QC documentation are already captured under the "Construction Management" line item task in Table 1. Please revise the	The cost estimate has been revised to not include a separate line item for "Work Plans and Submittals," and instead these costs are captured in the construction	Pending review of the final cost estimates included in the Interim Remedy FS, CPG response is acceptable.

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		document as necessary to avoid introducing unnecessary complexity and potential double counting.	Management cost.	
7	Table 3	Revise the document so the individual line item costs under “Support Facilities” are aggregated to one (1) line item cost with a unit tied to duration of construction. The level of detail is not necessary for an FS level cost estimate.	The document has been revised.	Pending review of the final cost estimates included in the Interim Remedy FS, CPG response is acceptable.
8	Table 4	Clarify if the unit cost percentage for mobilization/demobilization costs for dredging equipment includes land based removal equipment.	The unit cost percentage for mobilization/demobilization for dredging equipment does include land based removal equipment. The text has been revised.	Pending review of the final cost estimates included in the Interim Remedy FS, CPG response is acceptable.
9	Table 4	It is EPA’s understanding the utility protection would be avoidance or specific removal technologies. The use of sheet piling could be damaging given the potential age and condition of some infrastructure. Utility protection measures should be discussed further with EPA.	Utility and critical structure protection have been combined, with a lump sum of \$1.2MM, with a note that design will seek to minimize reliance on protection. Implementation of such measures will be evaluated during RD.	CPG response noted. EPA agrees that implementation should be evaluated during RD. However, as part of the Interim Remedy FS, please provide additional backup for the development of \$1.2M lump sum cost.

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10	Table 4	Please provide additional backup for the development of the “Additional Monitoring Surveys” (e.g., matrices to be sampled and approximate sample counts). In order to determine whether this additional line item cost is justified, and sufficient, additional understanding of the scope should be provided.	The construction monitoring surveys will be informed by the Current Conditions sampling and fully scoped during the RD. This item anticipates surveys that may be required beyond bathymetry and water quality monitoring. The cost of these monitoring surveys will not vary by alternative, and therefore does not impact the comparative evaluation of the alternatives.	CPG response noted, but as part of the Interim Remedy FS, please provide additional backup for the development of the unit cost.
11	Table 5	The individual line item unit costs for capping appear high compared to those estimated in the ROD for the Lower 8.3 Miles of the Lower Passaic River (EPA 2016). Please provide additional information on the basis for capping unit costs. The text of the basis for the cost estimate references examples of the similar projects used for the basis of cost for dredging, upland site staging area, sediment processing, water treatment, transportation and disposal unit costs. However, it does not include the same level of detail for capping activities.	The document has been revised	Pending review of the final cost estimates included in the Interim Remedy FS, CPG response is acceptable.
12	Table 6	Clarify how cost sharing with the Lower 8 Remedial Action is currently being determined/assumed. As discussed in the May 9, 2019 FS Meeting, EPA Region 2 consulted with ORC on assumption made for cost in the Interim Remedy FS for using the Lower 8 Remedial Action sediment processing facilities. The EPA determined that due to the unknown mechanism that will be used for sediment processing, the cost basis table should include both the costs	Given the inability to estimate how cost sharing might be implemented, the impact of this estimate on total costs, and EPA’s concern over the assumptions regarding cost sharing, the cost basis has been	Pending review of the final cost estimates included in the Interim Remedy FS, CPG response is acceptable. However, considering the alternatives being evaluated will have varying footprints

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		associated with sharing the Lower 8 Remedial Action sediment processing facilities as well as the general, estimated costs associated with constructing a sediment processing facility for the upper 9 use only.	revised to include only costs for disposal at a commercial processing facility. The option to utilize the lower 8-mile facility will be retained in the IR FS for future consideration during remedial design.	and by extension volume, a cost developed for construction of a facility should be scaled by alternative (i.e. removal volume) or provide, as part of the Interim Remedy FS, justification for a single sized processing facility.
13	Table 6	Based on the units for “Processing Facility Construction Cost Contribution,” this cost will be the same for all alternatives regardless of volume. Clarify if this cost be scaled for the scope of the alternatives being evaluated.	The construction cost contribution has been updated to scale with the alternatives.	Pending review of the final cost estimates included in the Interim Remedy FS, CPG response is acceptable.
14	Table 7	Based on the units for “Water Treatment Construction Costs Contribution,” this cost will be the same for all alternatives regardless of volume. Clarify if this cost be scaled for the scope of the alternatives being evaluated.	The construction cost contribution has been updated to scale with the alternatives.	Pending review of the final cost estimates included in the Interim Remedy FS, CPG response is acceptable.
15	Table 8	Revise the table to include costs for waste characterization profiling (i.e. analytical costs).	Waste characterization costs have been added for each alternative.	Pending review of the final cost estimates included in the Interim Remedy FS, CPG response is acceptable.
16	Table 9	Please provide additional details for the derivation of unit costs for “Annual Operation and Monitoring Costs” as details are refined.	These costs will be developed during the RD. These costs are the same for	CPG response noted. EPA understands that these costs will be refined during RD.

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			all alternatives, and will not impact the comparative evaluation in the FS.	<p>However, as part of the Interim Remedy FS, please provide additional backup for the development of the unit costs.</p> <p>Considering the alternatives being evaluated will have varying footprints and by extension, areas of various caps and treatment, annual operation and monitoring costs will be different across alternatives and should be scaled by alternative. If the CPG decides to use the same costs for each alternative, please provide, as part of the Interim Remedy FS, justification for that decision.</p>
17	Table 9	Including “Agency Oversight” as a line item task is not consistent with Record of Decision (ROD) for the Lower 8.3 Miles of the Lower Passaic River (EPA 2016) or EPA’s <i>A Guide to Developing</i>	The document has been revised.	Please remove the “Agency Oversight” cost line item from the table.

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		<i>and Documenting Cost Estimates during the Feasibility Study</i> (USEPA 2000). Guidance (EPA 2000) indicates that oversight activities can be included in construction management and technical support indirect cost line items as appropriate. Please revise the document accordingly.		
18	Table 9	Long-Term Monitoring is a line item in this table and Monitoring is discussed in the <i>Common Engineering Elements</i> dated May 6, 2019. Adaptive Management is also discussed in <i>Common Engineering Elements</i> dated May 6, 2019. Language should be added so the separation between Long Term Monitoring and Adaptive Management activities and the cost estimating that will be done for these activities (if FS costing will be done for both activities) is more distinct.	Long-term monitoring includes data that will inform adaptive management decisions, and includes water column, tissue and sediment sampling. Additional, specific activities that may be performed during a diagnostic assessment cannot be scoped during the FS process, and will be defined as data are reviewed and the system understanding is refined.	CPG response is noted, as part of the Interim Remedy FS, please provide additional backup for development of the lump sum cost.
19	Table 10	Please provide additional details for the derivation of unit costs for “Other Periodic Costs” as details are refined.	These costs will be developed during the RD. These costs are the same for all alternatives, and will not impact the comparative evaluation in the FS.	CPG response noted. EPA understands that these costs will be refined during RD. However, as part of the Interim Remedy FS, please provide additional backup for the development of the unit costs. Considering the alternatives being evaluated will have

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<u>No.</u>	<u>Location/ Page No.</u>	<u>EPA Comment</u>	<u>CPG Response</u>	<u>EPA Review of CPG Response</u>
				varying footprints and by extension areas of various caps and treatment, OMM costs will be different across alternatives and should be scaled by alternative. If the CPG decides to use the same costs for each alternative, please provide, as part of the Interim Remedy FS, justification for that decision.